

## INSTRUCTIONS TO AUTHORS

### A. General

In upper right corner of title page **write by hand** "For CMP".

Manuscripts should be submitted in duplicate. They should preferably be written in English; papers in French or German are also accepted.

Manuscripts must be in their **final form**, typed on one side of each sheet only, with double spacing and wide margins. Formulae should be typewritten whenever possible. Mimeographed copies are not acceptable unless clearly legible.

Please include a "Note for the Printer" explaining markings used. See suggestion overleaf.

To speed up publication, authors will receive **only one set of proofs**: provisionally numbered page proofs. Authors are requested to **correct typographical errors only**; they will be charged for corrections involving changes, additions or deletions to the original manuscript.

**Diagrams** should be submitted on separate sheets, not included in the text. They should be drawn in Indian ink in clean uniform lines, the whole about twice the size of the finished illustration. Inscriptions should allow for the figure 1, for example, to be about 2 mm high in the final version (i.e. 4 mm for reduction  $\times \frac{1}{2}$ ). The author should mark in the margin of the manuscript where diagrams may be inserted.

**Footnotes**, other than those which refer to the title heading, should be numbered consecutively and placed at the foot of the page to which they refer (not at the end of the article).

Please give on the first page of the manuscript a **running head** (condensed title), which should not exceed 70 letters including spaces.

**References** to the literature should be listed at the end of the manuscript. The following information should be provided for **journal articles**: names and initials of all authors, name of the journal, volume, first and last page numbers and year of publication. References to **books** should include name(s) of author(s), full title, edition, place of publication, publisher and year of publication.

### *Examples*

Bombieri, E., Giusti, E.: *Inventiones math.* **15**, 24–46 (1971)

Tate, J. T.: *p*-Divisible groups. In: *Proceedings of a conference on local fields*, pp. 158–183. Berlin-Heidelberg-New York: Springer 1967

## B. Marking

### 1. Text

The words “**Theorem**”, “**Lemma**”, “**Corollary**”, “**Proposition**” etc. are normally printed in **boldface**, followed by the formulation in *italics* (to be underlined in the manuscript).

The words “*Proof*”, “*Remark*”, “*Definition*”, “*Note*” etc. are printed in *italics* with the formulation in ordinary typeface.

Words or sentences to be set in *italics* should be marked by single underlining.

### 2. Formulae

Letters in formulae are normally printed in *italics*, figures in ordinary typeface.

It will help the printer if in doubtful cases the position of indices and exponents is marked thus:  $b_{\hat{p}}$ ,  $a^{\vee}$ . Spacing of indices and exponents must be specially indicated ( $A_m^n$ ) otherwise they will be set ( $A_{mn}^m$ ).

Underlining for special alphabets and typefaces should be done according to the following code:

single underlining:	small letter
double underlining:	capital letter
brown:	boldface headings, boldface letters in formulae
yellow:	upright
	(abbreviations e.g. Re, Im, log, sin, ord, id, lim, sup, etc.)
red:	Greek
blue:	Gothic
green:	Script
violet:	the numeral 1, and zero (to distinguish them from the small letter <i>l</i> and the capital letter <i>O</i> )

The following are frequently confused:

$\cup, \mathbf{u}, \bigcup, U; \circ, o, O, 0; \times, x, X, \kappa; \vee, v, \nu; \theta, \Theta, \phi, \varphi, \Phi, \emptyset; \psi, \Psi; \varepsilon, \epsilon;$

$a', a^1;$  the symbol  $a$  and the indefinite article  $a$ ;

also the handwritten Roman letters:

$c, C; e, l; I, J; k, K; o, O; p, P; s, S; u, U; v, V; w, W; x, X; z, Z;$

Please take care to distinguish them in some way.

## C. Examples

### 1. Special alphabets or typefaces

Script	<i>A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z</i> <i>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</i>
Sanserif	<b>A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z</b> <b>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</b>
Gothic	<b>A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z</b> <b>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</b>
Boldface	<b>A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z</b> <b>a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z</b>
Special Roman	<b>A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, 1</b>
Greek	$\Gamma, \Delta, \Theta, \Lambda, \Xi, \Pi, \Sigma, \Phi, \Psi, \Omega$ $\alpha, \beta, \gamma, \delta, \varepsilon, \zeta, \eta, \theta, \vartheta, \iota, \kappa, \lambda, \mu, \nu, \xi, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \varphi, \phi, \chi, \psi, \omega$

### 2. Notations

preferred form	instead of	preferred form	instead of
$A^*, b^{\sim}, \gamma', \mathbf{v}, \mathbf{v}$	$\bar{A}, \hat{b}, \tilde{\gamma}, \bar{\mathbf{v}}$	$f: A \rightarrow B$	$A \xrightarrow{f} B$
lim sup, lim inf	$\overline{\lim}, \underline{\lim}$		
inj lim, proj lim	$\varinjlim, \varprojlim$		
$\exp(-(x^2 + v^2)/a^2)$	$e^{-\frac{x^2 + v^2}{a^2}}$	$\frac{\cos(1/x)}{(a+b/x)^{1/2}}$	$\frac{\cos \frac{1}{x}}{\sqrt{a + \frac{b}{x}}}$
$f^{-1}$	$f^{-1}$		

Acta Informatica  
 Applied Mathematics and Optimization  
 Applied Physics  
 Archiv für Elektrotechnik  
 Archive for History of Exact Sciences  
 Archive for Rational Mechanics and Analysis  
 Archives of Environmental Contamination and Toxicology  
 Archives of Microbiology  
 Astronomy and Astrophysics  
 Bauingenieur  
 Behavioral Ecology and Sociobiology  
 Berichte Biochemie und Biologie/Biochemistry – Biology  
 Biological Cybernetics  
 Biophysics of Structure and Mechanism  
 Bulletin of Environmental Contamination and Toxicology  
 Carlsberg Research Communications  
 Chromosoma  
 Communications in Mathematical Physics  
 Contributions to Mineralogy and Petrology  
 Current Microbiology  
 Differentiation  
 Environmental Geology  
 Environmental Management  
 European Journal of Applied Microbiology and Biotechnology  
 European Journal of Biochemistry  
 Fresenius' Zeitschrift für Analytische Chemie  
 Holz als Roh- und Werkstoff  
 Informatik-Spektrum  
 Ingenieur-Archiv  
 Inventiones mathematicae  
 Irrigation Science  
 Journal of Comparative Physiology A. Sensory, Neural, and Behavioral Physiology  
 B. Biochemical, Systemic, and Environmental Physiology  
 Journal of Geophysics/  
 Zeitschrift für Geophysik  
 Journal of Mathematical Biology  
 The Journal of Membrane Biology  
 Journal of Molecular Evolution  
 Kampf dem Lärm  
 Konstruktion im Maschinen-, Apparate- und Gerätebau  
 manuscripta mathematica  
 The Mathematical Intelligencer  
 Mathematical Systems Theory  
 Mathematische Annalen  
 Mathematische Zeitschrift  
 Metrologia  
 Microbial Ecology  
 Mineralium Deposita  
 Molecular & General Genetics  
 Naturwissenschaften  
 Numerische Mathematik  
 Oecologia  
 Physics and Chemistry of Minerals  
 Planta  
 Polymer Bulletin  
 Public International Law  
 Radiation and Environmental Biophysics  
 Roux's Archives  
 of Developmental Biology

## Springer Journals keeping you in pace with science.

Springer journals are known and respected internationally for keeping professionals in science and in medicine, in research and in industry well-informed about the rapid progress in their fields. Decide for yourself by sending in one of the order coupons.

To: **The Head Librarian/The Library Committee**

From: \_\_\_\_\_

Department: \_\_\_\_\_

☐ I/we have studied the Springer Journal(s)

☐ and recommend that the journal(s) be purchased for the Main/Department Library

☐ I/we would like to see the Springer Journals Catalog with information on subscriptions/back volumes/microform

☐ Please obtain sample copies on other related Springer Journals and/or latest index/sample copy including volume-index

## SUBSCRIPTION ORDER FORM

SPRINGER-VERLAG BERLIN HEIDELBERG NEW YORK

Please order through your bookseller:

or Springer-Verlag, P.O. Box 105280, D-6900 Heidelberg, All countries (except North America)

or (North America) Springer-Verlag New York Inc., 175 Fifth Avenue, New York, NY 10010, USA

North America subscriptions are entered with prepayment only.

☐ Please enter my/our subscription to (please give title or ISSN)

Full subscription information is given on inside front or back cover page

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Date/Signature \_\_\_\_\_

☐ This is a new order

☐ This is a renewal order

Please send a sample copy and/or latest index/sample copy including volume-index (supply is limited):

Please send information concerning

☐ Back volumes

☐ microform editions

☐ journals catalog

To: The Head Librarian/The Library Committee

Postcard - Airmail

To the bookseller

Semigroup Forum  
SIEMENS Forschungs- und Entwicklungsberichte/Research and Development Reports  
Theoretica Chimica Acta  
Theoretical and Applied Genetics  
Wärme- und Stoffübertragung/Thermo- and Fluid Dynamics  
Werkstattstechnik  
Wood Science and Technology  
Zeitschrift für Lebensmittel-Untersuchung und -Forschung  
Zeitschrift für Physik A, Atoms and Nuclei  
Zeitschrift für Physik B, Condensed Matter and Quanta  
Zeitschrift für Physik C, Particles and Fields  
Zeitschrift für Wahrscheinlichkeitstheorie und verwandte Gebiete  
Zentralblatt für Mathematik und ihre Grenzgebiete/Mathematics Abstracts  
Zoomorphologie



Springer-Verlag  
Berlin  
Heidelberg  
New York

# Synergetics

— an exciting new field  
of interdisciplinary research

H. HAKEN

## Synergetics

### An Introduction

Nonequilibrium Phase Transitions and Self-Organization in Physics, Chemistry and Biology

2nd enlarged edition. 1978. 152 figures, 4 tables. XII, 355 pages  
Cloth DM 66,—; US \$36.30 ISBN 3-540-08866-0

"Synergetics, according to Professor Haken, is the study of how component subsystems can interact to produce structure and coherent motion on a macroscopic scale. In fact it is a theory of selforganisation with applications not only in physics and chemistry but also in biology and sociology. In this book an introduction is given to the basic physical ideas and mathematical methods to be used. The text is imaginatively written and well illustrated by an amazing variety of examples drawn from such diverse fields as laser physics, fluid dynamics, mechanical engineering, chemical reactions, ecology and morphogenesis. . . Professor Haken is to be congratulated in producing such a readable introduction to a subject still in its infancy."

*Physics Bulletin*

## Synergetics

### Far from Equilibrium

Proceedings of the Conference Far from Equilibrium, Instabilities and Structures, Bordeaux, France, September 27—29, 1978

Editors: A. Pacault, C. Vidal

1979. 108 figures, 3 tables. X, 175 pages. Cloth DM 59,—; US \$32.50  
ISBN 3-540-09304-4

**With contributions by:** P. Bergé, G. Bertrand, J. Chanu, P. De Kepper, M. Delmotte, M. Dubois, M. Dupeyrat, I. Epelboin, T. Erneux, C. Gabrielli, P. Glansdorff, H. Haken, P. Hanusse, M. Kaufman-Herschkowitz, B. Hess, W. Horsthemke, M. Keddar, E. Körös, R. Lefever, M. Marek, E. Nakache, G. Nicolis, A. Noyau, R. M. Noyes, M. Orbán, P. Ortoleva, A. Pacault, I. Procaccia, A. Rejou-Michel, H. Rooze, J. Ross, O. E. Rössler, J.-C. Roux, G. Schmitz, M. Suzuki, M. Velarde, C. Vidal, M. Villardi, R. Wiart.

## Synergetics

### A Workshop

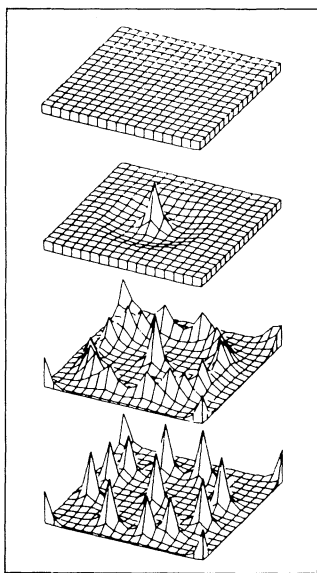
Proceedings of the International Workshop on Synergetics at Schloß Elmau, Bavaria, May 2—7, 1977

Editor: H. Haken

1977. 136 figures. VIII, 274 pages. Cloth DM 58,—; US \$31.90  
ISBN 3-540-08483-5

**With contributions by:** W. Buckley, R. K. Bullough, J. Cowan, G. Czajkowski, R. K. Dodd, P. R. Fenstermacher, H. Fröhlich, F. Fröhlich, J. P. Gollub, H. Haken, D. D. Joseph, A. Kastler, R. Kippenhahn, K. Kirchgässner, E. L. Koschmieder, H. Kuhn, Y. Kuramoto, H. J. Maresquelle, H. Meinhardt, A. Nitzan, A. Pacault, O. E. Rössler, D. H. Sattinger, H. L. Swinney, R. Thom, M. K. Welge.

Prices are subject to change without notice



Springer-Verlag  
Berlin  
Heidelberg  
New York

# Communications in **Mathematical Physics**

Chief Editor    A. Jaffe, Cambridge, MA

Editorial Board    H. Araki, Kyoto  
                          E. Brézin, Saclay  
                          R. Geroch, Chicago, IL  
                          J. Ginibre, Orsay  
                          J. Glimm, New York, NY  
                          R. Haag, Hamburg  
                          J. L. Lebowitz, New Brunswick, NJ  
                          E. Lieb, Princeton, NJ  
                          J. Moser, New York, NY  
                          K. Osterwalder, Zürich  
                          D. Ruelle, Bures-sur-Yvette  
                          B. Simon, Princeton, NJ  
                          Ya. G. Sinai, Moscow  
                          R. Stora, Geneva

Advisory Board    M. F. Atiyah, Oxford  
                          G. 't Hooft, Utrecht  
                          C. N. Yang, Stony Brook, NY